



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,050	09/03/2003	Curtis E Graber	CUSTO-03001	3701

28270 7590 08/25/2004

O'MALLEY AND FIRESTONE  
919 SOUTH HARRISON STREET  
SUITE 210  
FORT WAYNE, IN 46802

EXAMINER

LE, HUYEN D

ART UNIT	PAPER NUMBER
----------	--------------

2643

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/654,050	<b>Applicant(s)</b> GRABER, CURTIS E	
	<b>Examiner</b> HUYEN D. LE	<b>Art Unit</b> 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application:  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14 is/are allowed.
- 6) ☒ Claim(s) 1, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/3/2003</u> . | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 2643

### DETAILED ACTION

#### *Objection C.F.R. 1.75*

1. Claims 1 and 5-8 are objected to as presenting inconsistencies.

In claims 1, 7 and 8, before loudspeaker, "like" should be deleted.

Claim 5, line 3, after "behind", --the—should be added.

Claim 6, line 4, after "behind", --the—should be added.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehman (U.S. patent 6,394,223).

Regarding claims 1 and 15, Lehman teaches a loudspeaker assembly for use in a line array that comprises a trapezoidal housing (10), a low frequency cone woofer (11), an acoustically tuned rear chamber indent running in the direction of extension of the line array (14A-14D, 15, 16, 18A-18M, 19, figures 1 and 7), and a planar (81, 91) mounted to the front of the housing over the acoustically tuned rear chamber as claimed.

Best Available Copy

Art Unit: 2643

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard (U.S. patent 5,546,468).

Regarding claims 1 and 15, Beard teaches a loudspeaker assembly that comprises a trapezoidal housing (12, 14), a low frequency cone woofer (46, 54), an acoustically tuned rear chamber indent running in a direction of extension of a line array (figure 4), and a planar (20, 110) mounted to the front of the housing over the acoustically tuned rear chamber as claimed.

Beard teaches one loudspeaker unit. Beard does not specifically teach a line array of a plurality of loudspeakers. However, it would have been obvious to one skilled in the art to provide a plurality of loudspeakers that are arranged in a line array for a powerful system.

Regarding claim 16, as broadly claimed, Beard teaches a bass-reflex enclosure and the housing as claimed (figures 1, 3 and 4).

***Allowable Subject Matter***

6. Claims 9-14 have been allowed.
7. Claims 2-7 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and to overcome the objections as mentioned above.

Best Available Copy

Art Unit: 2643

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Adamson (U.S. patent 6,628,796) teaches a line array of a plurality of loudspeaker systems.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (703) 305-4844. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HL  
August 20, 2004

  
HUYEN LE  
PRIMARY EXAMINER

Best Available Copy